



future  
THRESHOLDS 38



Massachusetts  
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Technology

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# future

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Future never arrives ‘as is.’

Without critique, future is dogma; a sovereign institution, a blind vector driving what is now and present towards silent, monotone, and prescribed experience. What we think of as future inscribes a limit onto the present; transforming and regulating what it is, we do as we know by now.

Writing for and with future increases awareness of what it is now. It improves the capacity to deal with the fear of the unknown; not the one that is probable now, but rather the one that is to come—the one that can suspend its image from the present.

**thresholds 38** disseminates seeds—literary, biological, synthetic, utopian—hopefully non-conformist positions within the current future.

What you will find inside the bag on the cover is the common vetch: *V.sativa*\*. Vetches saw many futures. Since their first domination in the Near East—9500 years ago—they resisted many biological, economic, ecologic and social pressures; became the residues of the past—got mutated, synthesized, or colonized—yet survived until today. When they meet the soil, they will continue again writing their future—in negotiation with what they know about it by now and what it will be by then.

Common vetch is aggressive and invasive, it spreads fast. But it is good for restoring land. It adds nitrogen to the soil, breaks up its compaction, and distributes a lot of organic matter through its roots. It prepares the land for other crops. Seed it on a piece of land and it will know what to do.

What follows *V.sativa* are a series of positions to mobilize our current perception of future—to treat it both as temporal regime that puts current cultural production into perspective—but also as a mode of organization that can

defamiliarize us from our existing habits of future.

As synthetic biology firmly claims itself as a new design discipline, **Alexandra Daisy Ginsberg’s** irrational genome competition asks us what lies behind the inherent myth of synthesizing life. This is not a contest for building new Frankensteins; rather an exercise to think about unintentional life—hopefully, free from the prescribed myths and narratives of what we already know now—as life.

In contrast to the biopolitics of the newly synthesized, **Alla G. Vronskaya** draws our attention to the future of the death where propaganda is constructed by preservation and necrophilia. As Vronskaya traces the history of Lenin’s dead body, she reveals the design of his myth—a combination of the body and its symbolism—the technology that not only preserves it, but also presents it as the very architecture of the regime.

**R&Sie(n)** discuss their architecture of humors: an interplay of protocols between biochemistry, neurobiology, and robotics. For the “future purchasers” of architecture, R&Sie(n) familiarize us with a new logic of fabrication that is not based on structuration rather on desiring—which operates with dopamine, adrenalin, serotonin and hydrocortisone—and computes an architecture of secretion and weaving materialized in bio-plastic-cement.

For **Oron Catts** and **Ionat Zurr**, the drive for the future of life-making relies heavily on illusions of control—the desire to open up new frontiers to force fit the engineering mindset to manage life and its flow. Catts and Zurr highlight the need for a cultural reaction against the Taylorization of life and its products by artists and designers who can radically challenge the engineers in their ivory workshops.

**Christopher Tohr** Guignon proposes the bank for our new capitalism—a prudently

designed architecture that epitomizes a failing economy—a future in depletion and decline. In a world that is myopically driven by our unchecked growth and romantic notions of progress, Guignon's architecture not only feels more convincing, but also much more prepared—for the many failures to come.

**Elizabeth Krasner** tells us what happens when multiple visions of future get stuck in architecture and drain imagination. In Berlin's Tempelhof, Krasner witnesses the tension that gives birth to the contested space of the airport: a site that simultaneously bears the denial of an embarrassing regime but also the demands from a youth that is ready to leave behind the fear of a past future to claim a better one.

**Usman Haque** discusses Natural Fuse with **Matthew Fuller**. In times when we witness everyday a plethora of ideas to fix the dying planet, Natural Fuse goes beyond the regular Band-Aid. A network of plants and people—and a thinking that is deeply rooted in participatory culture—offers a more convincing alternative to the resentment-driven, commercial remedies for the so-called sustainable futures.

**John Zissovici** dissects the anatomy of the driving range and the role of virtual golf as the emerging recreational ritual in Japan. Refusing to be city or nature, image or space, real or virtual—the virtual golf range offers a new vantage point for Zissovici: a new display landscape that can be read as an elegant hybrid mashup for new expectations; not a this or that architecture.

When 75% of the world's population is projected to live by precarious coastlines, **Manar Moursi** prepares us—part real, part fiction—for island habitation. Moursi proposes not only viable strategies for our survival, but also alternative models of real-estate and governance; adaptive economies and piracy—that could

respond better to the socio-political necessities of the coming era and finally free us from our rigid conceptions of structure, stability and reality.

**Marc Böhlen** walks us behind the scenes of culture and peeks into the recent trends in the gathering, manipulation, and interpretation of data. Like a real tech support, he reads the symptoms of our current data malaise and assures us that there is not much to fear from our pleasures to be seen or remain invisible; there is still much room to explore—conceive diverse experiences—with data.

Technology plus control is not equal to nature. The myth of the sustainable future is not what ARUPtocracy wants us to believe. **Marc Jarzombek** cuts the pipe that pumps the opium for our mass-hallucination. He asks us to step outside from our false hopes of sustainability and learn to live, theorize, engineer and design—once again—in a nature that was never natural or sustainable.

Flesh is the prison of the soul. **Michail Vlasopoulos** and **Petros Phokaides** traverse a landscape of technologies and interrogate our drive for self-confinement. Theirs is a dystopian document for the sociologists of the future—an exposé of our representational, metaphorical and animistic drives—for imagining and building enclosure.

It is 1981, Carter wins another term against Reagan and becomes the 40<sup>th</sup> president. **Sascha Pohflepp** writes the fictional future of America from the perspective of the Golden Institute. An America that is not dependent of fossil fuels; capable of modifying climate to harness energy from lightning, and utilize its highways to generate energy where drivers are paid back by franchising chains for their high-speed exiting.

Cities are always known best from their fictional artifacts. But one needs to be

really lucky to find an urban meteorite imagined by **Studio And**. In times when it is easy to lose oneself in the nausea of cities, urban meteorites are like mysterious street diamonds—the contemporary bread crumbs—perhaps our only hope to imagine a way back home.

**Timothy Hyde** looks at the future of disciplinary knowledge with the black box and the gizmo—as two different models for design pedagogy. After taking an x-ray of the black box of architecture and dissecting the old rituals of the practice, Hyde tells us why the gizmo model is more relevant today—both for addressing contemporary concerns and to open up the field towards more inter- and trans-disciplinary epistemologies.

We are miserable creatures. We are stunted in our growth. We are mostly naked. We are not like you. In our concluding text for the issue, **Wilfried Hou Je Bek** speaks us from the language of savages who do not need Google, who already know everything they need to know. This manifesto is another last hope to confront our very unconscious before we have to search for it online ‡

*\* Due to agricultural legislations, only the issues distributed in the U.S. will have the seed bag on the cover.*

# 08

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## From here to infinity: Make-Believe and Virtuality On the Japanese Driving Range

John Zissovici

John Zissovici is Associate Professor at Cornell University where he teaches architectural design and courses that deal with the impact of digital media on architectural thinking. His current research on imagescape urbanism brings into alignment his various teaching interests and has resulted in award-winning short films using images culled from Google Earth. His architectural work includes built projects, competitions and speculative work, and has been published in Japan, Austria, Germany, Ireland, and the U.S. His large-scale installations involving digital media, robotics, and video have been exhibited at the Phoenix Museum of Art, The Burchfield-Penney Art Center in Buffalo, NY, Tsing Ha University in Beijing, and the Johnson Museum of Art in Ithaca, NY.

### Introduction

*"At one blow, they become the hollow mold from which the image of modernity was cast."*

Driving ranges mark the crossing point along the figure-eight shaped path whose two curved ends correspond to the earliest appearance of the golf course in Japan and the emerging contemporary phenomenon of virtual golf. The Japanese driving range represents both the intersection of post-enlightenment Western ideas about nature, expressed in picturesque landscape paintings and played out on the golf course, and the Zen garden's abstract explorations of the pure space of the image. Their conflation produces a displaced and displayed landscape that is for the eye and the ball only, a new yet vaguely familiar synthetic hybrid that is already both too flat and too three-dimensional. As an instrument for processing space into image, the driving range is both a model and a privileged vantage point for examining the transformative possibilities of architecture. The driving range, as strategic set-up that negotiates between architecture and the representational elements of the landscapes of golf, also suggests alternative models to the purely representational, or totally virtual leisure-fueled environments of the 21<sup>st</sup> century, embodied by virtual golf.



Golf is first introduced in Japan, a country with deeply rooted landscape traditions by the British, just after the turn of the century. Though readily accepted from the beginning, there were still only about 23 golf courses at the beginning of World War II, all faithful to Western models, and mostly designed by Western course architects. By 1956, only the number has changed, increasing to 72. The driving range's sudden appearance around this time marks Japan's inevitable appropriation of the game, and signals a broader shift towards an increasingly mediated field of deconstructed action that gradually becomes a prominent feature of Japanese urban life. Its eventual disappearance from the consciousness of

Japanese people, [“oh that, that’s just a Just Hit It”, the literal translation of *uchippanashi*] is a measure of the by now more than 10,000 driving ranges’ ubiquity, and “*the Japanese genius for assimilation, [whereby] incongruous elements...are brought together and...made to cohere in a unique manner,*” thus becoming thoroughly Japanese.<sup>2</sup> The driving range emerges in response to the opposing pressures of the need for more golf courses and the ever-decreasing amount of space available in the already crowded landscape. It is at the forefront of other similarly motivated ingenious programmatic and typological inventions, characterized by the mechanically enabled densification of objects, people, and activities in Japanese cities in the latter half of the 20<sup>th</sup> century. By stacking several concave curved rows of players practicing their drives, the driving range accommodates dozens of players in a space often right in the city, that is a fraction of a single hole on a regulation course. Concavity enhances the communal sense of participation in the shared mostly unattainable goal of the center, and nourishes the impulse to compete with all other golfers within one’s line of sight.

### Practice

Practice fractures the spatial and temporal continuity of golf and replaces the epic journey of the player hitting one ball into 18 consecutive holes, with the repetition of the drive from a single point. With the linear narrative of the 18-hole journey through a mythic landscape suspended, the driving range is free to propose its own space and scene through the two or three ‘greens’ artfully dispersed at various distances from the stationary golfer, but too close to each other to be mistaken for the real thing.

Progress, precisely measured by distance traveled with the fewest swings along the folded linked lines of the 18-hole course, must find a new definition on the driving range. Here accomplishment is registered through the number of balls hit towards the greens, precisely reflected by the amount of money fed into the automatic ball dispensing machines. The inversion of paying for the ball one hits, or more precisely its retrieval from a space one no longer moves through, rather than the upkeep of endless stretches of perfectly manicured landscape, suggests that at the driving range, with each new ball, one has already started to reel in the landscape.

### Transformation

“...a contemporary golf course is already a second-order image—a landscape sculpture that mimics a painting in the landscape tradition.”<sup>3</sup> Privacy on the driving range is a mental construct, the meditative zone a golfer creates for the drive through the agency of the swing. With its compressed yet airy spatiality, and the spirituality of the practice of the swing, the driving range reveals unexpected affinities with traditional Zen gardens. The deceptively simple set-up of the player in front of a net-enlosed, scaled down, synthetic reproduction of the space of golf, only to deny him or her access except through the agency of the ball, constitutes Japan’s ingenious transformation of golf. The driving range displaces the landscape of golf outside arm’s reach, still within driving range, but no longer accessible, and turns it into a scene to be looked into, the abstraction of an abstraction of nature, “a model landscape in which the mind [and the golf ball] can wander.”<sup>4</sup> The compression of the physical space of the game, along with the player’s displaced relation to it, links the driving range to traditional Japanese attitudes toward nature painting, landscape, garden design, and architecture. The added degree of representation to an already second-order image seems perfectly suited to Japanese sensibilities, for whom the golf course, like “the scenic view is great, but more admired is the reproduction.”<sup>5</sup>



## Tilted plane



The tilted, contoured, artificial surface of the Kyoto driving range, onto which players today drive and chip balls from the multi-leveled Tee-house, is the hyper-evolved descendant of the shortened, grassy fairway and green of early driving ranges. The operation that folds the far back onto the near produces a layered, complex topographic condition with functional, historical and perceptual consequences. At first glance, functionality seems to motivate every aspect of this new 'nature.' Each level of tee stations features ball vending machines serviced by automated ball delivery systems, with screw drive conveyors that move up to 24,000 balls an hour from the pool of the mechanical washer, to which gravity, the golfer's invisible enemy, returns balls from the farthest corners of the field via invisible stream-like channels in the folds and creases of the tilted fairway. "Driving your profits higher" is the pitch, or promise made by ever more sophisticated American made RANGE AUTOMATION SYSTEMS. Low maintenance, reliable drainage, effective ball collection, and a general sense of modernity and cleanliness are legible in every detail. Less evident behind this veil of efficiency and inventiveness are unmistakable allusions to the Katsura palace garden, a mere fifteen-minute walk away, and to the Zen garden of Ryoanji, less than two miles further north. Foregrounded by some 150 feet of carefully tended lush real grass, the artfully scattered artificial greens, trapped ominously in a synthetic color field of blue and sand, lead the eye towards its ultimate goal: the image of distance, the constructed dimension separating the viewer/player from a point in the landscape. The farthest and highest part of this sloping surface, by now a full storey and a half above the ground, is merely a denser version of the back netting, folded down into the stretched illusion of ground, now at eye-level with the equally ungrounded players on the second tier of the tee-house. Cars park on the grassy lawn underneath it in a vain attempt to seek shelter from the sweltering heat. The tilted plane, like the isometric construction of Japanese paintings from as far back as the 11<sup>th</sup> Century, flattens space and merges the surface of golf with the city in the background into a layered abstract image. The tilted, pictorialized field, with the holes in the greens as its shifting centers, is the first step in making explicit the target-like character of the landscape. The vertical projection screen of virtual golf is the last.

## Typology



While the structure that houses the drivers, the TEE-house, draws its strength from more than its functional clarity, its modernist lines and typological clarity and consistency seem to suggest otherwise. As if modeled after clubhouses and Japanese golf resort hotels overlooking world-class golf courses, the TEE-house provides the clubhouse's comfort and amenities, along with the golf hotel's focus on the individual overlooking greens and fairways from his balcony. As the first step in bringing golf in-doors, tees are distributed on elevated curving balconies, reminiscent of the resort hotel's balconies. With privacy screens reduced to about 18 inches, the minimum height necessary to protect the adjacent player from errant drives, the curving rows of players overlook not only the shared representation of the golf course but also each other. Each tee is the tip of an invisible radius some 1200 feet long, the guiding vector for the perfect shot towards a single invisible point in the distance, well beyond the boundary set by the netting. From the covered comfort of the TEE-house you can now drive your balls into the picturesque void even in driving rain. Weather as a factor is reduced to its visual effects on the scenery. A chair and small table behind each TEE-station, replaces the hotel room as the place to retire between buckets of balls. To bring the room back as a useful programmatic element for urban sportsmen and sportswomen, merely requires

putting golf in bed with sex, or mating the driving range with the 'love hotel,' a similar space and time-saving invention that has evolved into another ubiquitous and sophisticated Japanese institution. This new hybrid could still be called *uchippanashi*, though now, with a more nuanced meaning.

### Verticality

The elevated vantage point provided by the curved, stacked tiers, seems to privilege the spectator half of the golfer's split personality. Being suspended some thirty feet above the already ungrounded tilted field of play in a rarified atmosphere of apparent weightlessness, hints at the potential of impossibly long drives. In a quaint gesture, the fee structure of the driving range vainly tries to reassert the value of reality, by charging more for the authenticity of the ground level tee stations. As proof of the decidedly un-*imamekashi*, or un-enlightened mindset behind these attempts at economic hierarchy, it is not unusual to find the upper tiers crowded, with only a few players occupying the ground level. The presence of skilled golfers on the upper levels reveals how little grounding is necessary to gauge accuracy and distance. It also seems to confirm, along with overwhelming figures [10,000+ driving ranges vs. 2,000+ golf courses], that despite its potentially second-class status as mere training ground for 'nature', a substitute for the real thing, the driving range is already much more than it is less, with deep roots in the rich history of Japanese landscape. Enhanced by verticality, the elevated spectator's view tends to favor the abstraction of the plan, merely a supplemental feature in virtual golf, a picture within a picture, and recalls its subtle and complex evocation in early Paradise gardens. *"Just as one perceived the structure of the garden through an interpretation of its mandalistic intention, so one perceived with the inner eye of understanding its ideal view from above."*<sup>6</sup>

### Detour

The Takenawa Golf Center, part of the Tokyo Prince hotel complex specializing in accommodations for "eternal weddings," is an indoor golf facility where players come to work on form and style, surrounded by aerobic studios, beauty parlors, fashion boutiques, dermatology clinics, and high-end massage parlors, all intended to make you feel as if you look good. In this hedonistic context, the focus of the game appropriately shifts to the body and its movement, or the perfect swing, that is the precondition for distance, accuracy and consistency. The compact, two-level space, where no shot can ever travel more than some twenty-five feet, offers a single semi-circular synthetic green, as the sole remaining recognizable reference to an actual golf course. In fact, two thirds of the players face net-covered blank walls away from the green, where they can practice their swing without ever suffering the spatial consequences of errant shots. The teaching pro provides the missing element of embarrassment. With help from the instant replay on individual video monitors enhanced by virtual regulating lines, he deflects all attention back onto the player's swing, the most elemental fragment of the game. A photomural of what seems like a lone putting green overlooking an idealized tropical landscape, but is in fact a highly doctored image of an actual Hawaiian course, the color of its green as artificial as the 'real' one in the foreground, greets visitors as they enter the facility. By virtue of its orientation away from the players' line of sight, the image merely lingers on the margins, a false view reduced to a sign, offered as mere distraction from the otherwise generic athletic environment. The pure image has not yet recognized its own potential to become the target, and sole destination of every shot.

### Net

*"The presence of the real, rough, raw, random nature must remain... yet remain not in fact but in vision—in the eye... of the golfer—because, for Eden to mean anything, raw nature must remain visible in the background... transformed by the dialectics of civilization into the rough—a symbol of that temptation into which one prays not to be lead."*<sup>7</sup>



The driving range's netting captures space and shapes it into aviary cathedrals, devoted to curtailing the ball's flight, while promoting the illusion of infinite space. The space of ground reserved for golf by the netting satisfies the most fundamental requirements of the Japanese garden: to be separate and enclosed from its surroundings, and for *"the sense of closure never [to be] confining or absolute. There is always some visual escape...Within its confines... ordinary scale is suspended, an ideal image of landscape."*<sup>8</sup> The city as the borrowed [urban] landscape provides the mental distance to complete the drive cut short by the netting. The net simultaneously fences out, and protects the city that has replaced a nature already in short supply in post-war Japan. With risk removed from the equation, and the city standing in for 'rough' nature as the contemporary image and symbol of temptation, the allegorical dimension of golf is brought 'up to date.' The architecture of the driving range mediates between the reconfigured game and its new urban surroundings. The net, effective in keeping the ball from straying into the virtual 'rough' of the surrounding city, now acts as a scrim for the image of the city. More than just a supplemental dimension, the city amplifies the exhilaration of the drive with the illusion of drilling balls, without penalty, into the crowded city just beyond.

### Dislocation



The pleasure derived from the act of seemingly driving the ball into the city, when compared to that experienced by American sailors launching golf balls off the deck of an airplane carrier, confirms the ingeniously constructed economy of the Japanese version. The sailor merely exploits his surroundings, his swing a futile, wasteful, yet ultimately defiant gesture in face of the infinite, unavoidable water-trap. The splash momentarily marks a point of transition. After the ball disappears, it sinks and settles, adding thousands of invisible feet to the already hard-to-gauge distance of the drive, to be transformed into a tiny invisible marker, a monument dedicated to the singular, decadent moment of the swing. In his 1950 film *"Orphee"* Jean Cocteau rotates his camera 90 degrees to transform a horizontal pool of water into a vertical liquid surface, the illusion of a mirror that is the boundary between life and death through which the poet must pass to descend to Hell. A similar operation on the ocean surface transforms it into the vertical target, and liquid boundary of the drive, now located about ten feet in front of the tee, too close for gravity to have any appreciable affect on the flight of the of the ball, and therefore temporarily useless in gauging anything about the accuracy or distance of the drive. A golfer, standing at the edge of the launch deck of the now hovering carrier, driving a ball full-force into a perpendicular oceanic wall of water ten feet away, is a disorienting image with radical implications for our thinking of the physical world.

### Virtuality

*"In the wax museum the past enters into the same aggregate state that distance enters into the interior."*<sup>9</sup>

Virtual golf begins where the image of the lone golfer at the edge of the carrier deck left off. The implausible relation to gravity implied by the vertical plane of water is only surpassed by the premise of virtual golf: to translate the physical properties of the ball's movement before it is absorbed by a vertical surface, into the image of the continuation of the ball's flight, now displayed on the same surface. In other words, to replace the death of the balls movement in physical space, with a speculative, simulated version of its continued afterlife in virtual space. The splash of the ball hitting the surface of water off the carrier deck is the equivalent of the 'thunk' coming from the screen in virtual golf. They both announce the

encounter of the ball with a surface that is both an obstacle, and the medium to extend the ball's flight into dimensions that rely on the mind as much as on the eye. The moment of impact marks the appearance of the virtual ball in the projected image, and the illusion of its continued flight off into the distance is no less radical and disorienting to have an accent grave over the first e. image of a train rushing towards the viewer, more than a hundred years ago.

### Set-up

Virtual golf dispenses even with the foreground green of Tanekawa Golf Center, the last vestige of any literal allusion to the landscape of golf, and replaces it with a screen, some ten feet in front of the golfer, the potential site for an infinite number of images, and terminus of every drive, approach, chip shot, and put. The set-up of projector, tee, infrared sensors, computer, and stop/projection screen reveals in its sequentiality the trajectory of transformations, and information feedback that is the new technological space-time of golf. It also fits neatly into sports bars, sporting goods stores, and Donald Trump's living room. The technology, aimed at analyzing the player's swing, is upgraded with the most advanced electronic and digital technology, developed for space exploration and the military, and reoriented to observe and analyze the movement of the ball from the time it leaves the face of the club, until it smashes into the screen just ten feet away. Within the fraction of a second squeezed between the two impacts, infra red sensors track the trajectory, acceleration, speed and spin of the ball, and translate that information into a virtual image simulating the continuation of the ball's flight from the player's point of view in real time, if not space. The context for this simulated flight is the projected image of a hyper-realistic virtual model of any number of world famous golf courses. "Every element of the golf course is depicted on screen, from waving flags to water reflections... Balls bounce off trees, splash in water, spin on green, even hit the flag stick. A computerized grid allows players to read the topography and slope of each green, to gauge the speed and break of every put. No detail has been overlooked."<sup>10</sup> Full Swing Golf also promises an "exclusive recessed hitting mat with simulated fairway, light rough, heavy rough, and sand surfaces," a less than twenty-square-foot synthetic remnant of the hundreds of acres of well kept landscapes of the world's finest courses, and all that is needed to fully replicate the experience of eighteen holes of golf, anywhere in the world. Players choose from as many as 50 world-class virtual golf courses, and navigate their way through with their drive, approach, chip shot, or put, as joystick.

### Conclusion

Virtual golf completes the cycle of implosion of the space of golf begun by the Japanese driving range with its shift towards a single space, and elaborated at the Takenawa Golf Center with its emphasis on the swing over the drive, or body over space. It also brings to its inevitably uninteresting conclusion the shift toward the raw image with which the Zen garden, and the Kyoto driving range each flirt, but avoid by keeping in play multiple layers of allusion and illusion. Seen through the digitally enhanced rear-view mirror of our high speed present, the seamlessly joined ensemble of tee-house, tilted plane and vertical scrim-like netting of the Kyoto driving range appears as a finely calibrated instrument for the production of uncertainty. It is luckily, as the fine print on the mirror reminds us, much closer than it appears. Powered by the energy of mass participation in ritualized recreation, the driving range processes all reductive oppositional notions of 'East vs. West,' 'city vs. nature,' and 'real vs. virtual' into a formally elegant hybrid mash of 'this and that,' the far and the near, the perfect model of architecture for the often-conflicting needs of our local/global mediated future t

Figures 1-6 are by Chad Gerth, a photographer who had spent some time in Japan and was also taken by the many strange and wonderful qualities of the driving range.





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